

What is claimed is:

1. A method of coating the surface of one or more microprojections of a microprojection array comprising the steps of:

5           providing a microprojection array comprised of one or more microprojections;

          treating the surface of one or more of said microprojections of said microprojection array with a method selected from group consisting of chemical pre-etching, plasma treatment, heat treating, rinsing with an alkaline detergent  
10       and rinsing with a wetting agent;

          providing a coating formulation comprising an active agent;

          applying said coating formulation to said treated surfaces of said one or more microprojections; and

          drying said coating formulation onto said surfaces to form a coating.

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2. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 1 wherein said coating formulation contains a pharmacologically effective dose of said agent.

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3. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 1 wherein said step of treating comprises chemical pre-etching.

4. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 1 wherein said step of treating comprises plasma treatment.
- 5 5. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 1 wherein said step of treating comprises heat treating.
6. The method of coating the surface of one or more microprojections of a  
10 microprojection array as disclosed in claim 1 wherein said step of treating comprises rinsing at least one surface of one or more microprojections with an alkaline detergent.
7. The method of coating the surface of one or more microprojections of a  
15 microprojection array as disclosed in claim 1 wherein said step of treating comprises rinsing at least one surface of one or more microprojections with a wetting agent.
8. The method of coating the surface of one or more microprojections of a  
20 microprojection array as disclosed in claim 7 wherein said wetting agent comprises a surfactant.
9. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 8 wherein said surfactant comprises  
25 a surfactant selected from the group consisting of sodium dodecyl sulfate, cetyl

pyridinium chloride, TMAC, benzalkonium chloride, tweens, sorbitans, and laureths.

10. The method of coating the surface of one or more microprojections of a  
5 microprojection array as disclosed in claim 1 wherein said wetting agent is present in a concentration at or above the critical micelle concentration.

11. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 1 wherein said wetting agent  
10 comprises a wetting agent selected from the group consisting of HEC, HPC, HPMC, MC, HEMC, EHEC and pluronics.

12. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 1 wherein said wetting agent  
15 comprises a wetting agent selected from the group consisting of proteins and peptides.

13. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 9 wherein said tweens comprise a  
20 tween selected from the group consisting of tween 20 and tween 80.

14. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 1 wherein said coating formulation has a viscosity from about 3 centipoise to about 200 centipoise and said  
25 coating formulation has a contact angle of less than about 100 degrees.

15. A method of coating the surface of one or more microprojections of a microprojection array comprising the steps of:

- providing a microprojection array comprised of one or more
- 5 microprojections;
- providing a coating formulation comprising an active agent and a wetting agent;
- applying said coating formulation to said surfaces of said one or more microprojections; and
- 10 drying said coating formulation onto said surfaces to form a coating.

16. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 15 wherein said coating formulation

15 contains a pharmacologically effective dose of said agent.

17. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 7 wherein said wetting agent comprises a surfactant.

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18. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 17 wherein said surfactant comprises a surfactant selected from the group consisting of sodium dodecyl sulfate, cetyl pyridinium chloride, TMAC, benzalkonium chloride, tweens,

25 sorbitans, and laureths.

19. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 15 wherein said wetting agent is present in a concentration at or above the critical micelle concentration.
- 5 20. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 15 wherein said wetting agent comprises a wetting agent selected from the group consisting of HEC, HPC, HPMC, MC, HEMC, EHEC and pluronics.
- 10 21. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 15 wherein said wetting agent comprises a wetting agent selected from the group consisting of proteins and peptides.
- 15 22. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 18 wherein said tweens comprise a tween selected from the group consisting of tween 20 and tween 80.
- 20 23. The method of coating the surface of one or more microprojections of a microprojection array as disclosed in claim 15 wherein said coating formulation has a viscosity from about 3 centipoise to about 200 centipoise and said coating formulation has a contact angle of less than about 100 degrees.